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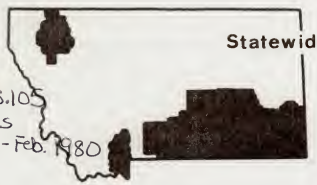

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Jan.-Feb. 1980

Statewide 208

NEWSLETTER

TO ACHIEVE AND PRESERVE CLEAN WATERS

January-February 1980 Issue #20

AGENCIES JOIN FORCES IN POLLUTION FIGHT

To implement the recommendations of its 208 Report (the Statewide Water Quality Management Plan), the state Water Quality Bureau (WQB) has signed cooperative agreements with two agencies. The bureau is also developing cooperative programs with other agencies to work out the management of nonpoint-source pollution.

An agreement between the bureau and the U.S. Forest Service was signed into effect by the Regional Forester on Sept. 28, 1979. It gives oversight responsibilities to WQB and designates the USFS as the lead management agency for nonpoint pollution problems on USFS lands. Under the pact, the WQB must be advised of existing and potential nonpoint pollution problems -- that are judged significant by the Forest Service -- and WQB will be given the chance for input into development of solutions.

Agreements have also been signed between WQB, the Department of Natural Resources and Conservation (DNRC) and each conservation district to implement a non-regulatory, nonpoint-source pollution control program for agriculture. Each conservation district, under the agreement, will develop a master water-quality plan in its area. It will also prepare an annual report of the progress it's making toward the goals in the plan (see next story).

A third agreement is being worked out between the state Bureau of Land Management office and WQB that will define responsibilities for each agency similar to those defined in the agreements listed above. This agreement should be near the signing stage this spring.

WQB has begun working with DNRC's Division of Forestry to develop a cooperative water quality management program. The program will incorporate the recommendations of the statewide 208 plan, within the division's limitations, and will "target" special forestry assistance in a county tentatively selected for a pilot project.

The Statewide 208 Project is funded by the U.S. Environmental Protection Agency under provision of Section 208, PL 92-500 for the purposes of water quality management planning in that portion of Montana exclusive of the four designated planning districts. Project Coordinator is Kit Walther; Public Participation Coordinator is Charles Wood; Montana Water Quality Bureau; telephone (406) 449-2406.

The Water Quality Bureau will be working with other agencies on similar projects as other phases of the 208 plan are implemented.

A LITTLE HELP FOR OUR FRIENDS

A "road show" has been travelling throughout Montana to help conservation districts set up their water-quality programs.

Three information teams from state agencies met with conservation district supervisors, district conservationists, some county officials and others at a total of 57 stops in November and December.

The two-person teams explained the 208 Program and the districts' responsibilities under the 208 agreements the districts signed.

The teams emphasized that the May 30 deadline is drawing near for districts to update and refine their long-range plans concerning water quality.

"All of the conservation districts' plans need at least some updating," said Ken Chrest, Water Quality Bureau, one of the team members. The updating is centered on identification and prioritization of water quality problems, plus outlining strategies to correct them.

The state agencies will continue to offer assistance to the districts to assure that the plans are completed.

Other team members included Parham Hacker, Terry Wheeler, Deeda Richard and Pete Strazdas of the Department of Natural Resources and Conservation, and Ray Beck, executive vice president of the Montana Association of Conservation Districts.

UPDATING THOSE LONG-RANGE PLANS

Conservation districts, of course, have been given the leadership role in implementing the nonpoint pollution portion of Section 208 of the Clean Water Act (Public Law 92-500). To accomplish the act's goal of swimmable and fishable water by 1983, the districts signed agreements with the state Department of Health and Environmental Sciences (DHES) and DNRC that calls for updating of long-range programs to include a water-quality section and implementation of that section.

That's fairly simple if a district's long-range program has been revised since 1974. In that case, perhaps only the following would need revision:

(1) the authorization, which should include the district's formal, written Memorandum of Understanding with DHES and DNRC;

(2) the section on major laws relating to the district program, which should include the Clean Water Act of 1977, Section 208;

(3) the section on Problems and Policies, which needs to include a narrative on water quality;

(4) the Inventory section, which should be reviewed and updated as needed; and

(5) the section on Problems and Opportunities, which also needs to include a narrative on water quality.

However, for long-range plans that haven't been revised since 1974, when a format was established by DNRC's Conservation Districts Division, things won't be quite so easy. A complete update will be needed.

To ease the pain, DNRC recently published some guidelines to supplement the 1974 format. They contain the basic information needed to meet the 208 requirements and to implement a water-quality program. Also, they can be used to meet the five-year updating requirements of the Resource Conservation Act.

The steps are listed in the logical order districts would follow in the planning process. The steps include: Inventory, Problems Description, Public Input (at three different steps in the process), Priorities, Goals, Alternatives (including BMPs and available technical and financial resources), Implementation and Evaluation.

The guidelines also suggest the materials conservation districts should have in their 208 libraries.

The guidelines have been mailed to conservation districts. Copies can be obtained by writing DNRC - Conservation Districts Division, Capitol Station, Helena 59601.

TOURS -- A LOOK BACK AND A LOOK AHEAD

It's unsettling, on a Montana winter day, to think about people gathering outdoors for a water-quality tour. That's for warmer weather. But the planning for this year's events should begin soon.

The Water Quality Bureau will provide grants -- up to $500 -- to conservation districts and other government entities to develop and conduct local water-quality tours. It's a good way to get landowners and the general public out to see the problems in their areas. And it's a good way to teach them some solutions.

1979 was a good year for tours. Seven of the best were held at:

-- Muddy Creek. Sponsored by the Cascade County Conservation District, this April tour had a dual purpose. First, to inform local, state and federal agencies of the magnitude of the erosion on the aptly-named Muddy Creek (a tributary of the Sun River) by giving them a first-hand look. Agency people observed steep, eroding and sloughing banks, active headcutting, high water

flows and poor land management. Second, the tour updated the various agency activities and established agency commitments to a task force that would go on to develop a special Muddy Creek report and seek funding the rehabilitation of the creek. See the story on Page 8.

-- Teton County. About 20 area farmers met an equal number of agriculture and conservation officials at Power at the third annual All-Resources Tour in July. For the first time in the tour's history, water-quality problems took a front seat.

The group stopped at a saline seep that keeps growing each year and then at a seep that has been dried up with the planting of alfalfa. Other stops were at the infamous Muddy Creek, at a lush "organic" pasture that was last seeded in 1932, and at some new irrigation techniques -- such as concrete irrigation ditches and pipes and a monitored wasteway -- at the Greenfield Irrigation District. The tour concluded with a slide show by the Fish, Wildlife & Parks Department showing the disastrous after-effects of stream channelization.

-- Lincoln County. The effects of timber harvesting on water set the theme for this northwestern Montana tour. About 20 persons attended.

They looked at the way logging roads are being built in the area -- both properly and improperly -- and how those roads contribute to or prevent erosion and sediment-laden runoff. There were some good examples of fills across drainages that contribute to erosion and sediment, road cuts in erodible soils, improper culverts and poor road-drainage designs.

-- Toole County. The Toole County Conservation District led about 30 persons to the Ray Tomsheck farm west of Shelby. Significant water-quality problems and related practices there were examined.

They included: rangeland conditions and their relationship to water infiltration efficiency and surface runoff, alternative dryland crops used in a flexible cropping system to abate saline seep, and a problem in Spring Coulee caused by a refinery's discharge of saline water unfit for Tomsheck to use in his irrigation and reservoir development (a case under investigation by the Permits section of the Water Quality Bureau).

-- Carbon County. Almost the entire length of a Carbon County creek was examined by ranchers and government officials in September during a tour east of Fromberg. About 45 persons attended, concentrating on the numerous cases of pollution that assault Bluewater Creek as it meanders down its watershed to meet the Clarks Fork River.

The group was shown that the upper and middle reaches of the

creek -- fed by a couple of artesian springs -- are fine trout habitat that even support a state trout hatchery. But the problems began to show up downstream where landowner needs conflicted with trout needs. Overgrazing, destruction of streambank vegetation, poor water management and creek channelization have caused severe erosion and sedimentation.

After it was explained that the muddy lower reaches of Bluewater Creek provided no habitat for trout and is more harmful than beneficial to Man, conservation district supervisors asked the tour members for help in the local effort to solve the problems.

-- Butte. The Mile High Conservation District provided a tour for approximately 35 persons in the Butte area. They took a look at range conditions, reclamation areas and problems that affect Grove Creek and Blacktail Deer Creek, saw how mine overburden had been reseeded in the Columbia Gardens area, and witnessed techniques used to prevent erosion at the Butte airport. Subdivision activity and stormwater runoff from the local Ramada Inn were also discussed.

-- Flathead County. Honors for the largest turnout last summer would go to the Flathead County Conservation District tour in the Kalispell area in early September.

Fifty people came to view the Kalispell Sewage Treatment Plant and its effects on Ashley Creek, to see the impact of growth and development on the shore of Flathead Lake, to visit some monitoring wells used in the Evergreen subdivision test area, and learn about erosion caused by channelization and bridge construction on the Stillwater River. The tour also received excellent news coverage in both the print and broadcast media.

SO YOU'RE PLANNING A TOUR OF YOUR OWN. . .

Five of the seven tours above received Water Quality Bureau grants totaling more than $1,600. As a condition for the grants, the spon-

soring conservation districts had to follow some guidelines set by the bureau:

(1) A committee must be organized to plan the tour. It will be responsible for the agenda, publicity, tour "staff," etc. The committee will include conservation district supervisors; SCS district conservationist; the extension agent; a county commissioner or member of the local planning board or local health department, or all three; a Water Quality Bureau 208 staff member; and others as needed (for example, the forester from the division office, or a local industry representative).

(2) Tours will include presentations and discussions from both professional resource people and local landowners. The staff, or "tour guides," will be balanced in composition.

(3) The tours will be designed for the general public and landowners, independent contractors (loggers, for example), and government officials and representatives.

(4) Newsletters, television (where applicable), radio, newspapers and personal contact will be used to ensure adequate advanced publicity and public interest.

(5) Pre-determined stops will be arranged that show tour participants nonpoint-source pollution problems, their causes and best management practices used to alleviate them. Adequate time for explanation and discussion must be allowed at each "point of interest."

(6) The grant will not exceed $500, except for special situations approved by WQB. The grant will pay for:

-- bus rentals
-- publicity costs (which must be approved by WQB)
-- follow-up publications (also upon WQB approval)
-- mileage for supervisors in planning the tour
-- secretarial time
-- meeting room rentals
-- rentals of audio-visual equipment

The grant will not pay for:

-- lunches and beverages
-- salaries for supervisors

If you have a question about the grants or the guidelines, or simply require some assistance in setting up a tour, you can contact Charles Wood at the Water Quality Bureau (phone 449-2406).

Again, if winter's here, spring can't be far behind.

WQB PRODUCING TWO VIDEO TAPES

It's amazing how many Montanans are unaware of problems faced by the state's Number 1 industry -- agriculture. The average urban-dweller seems particularly surprised that farmers are having problems with water quality.

The best example is saline seep. Many Montanans have never heard of it. If they have, they're not likely to know its magnitude or its causes. Many farmers know all too well about saline seep, but some don't realize that research has pinpointed the causes and is offering some solutions.

The same goes with proper streambank management. Many Montanans don't know there's a problem with altering a stream's natural state. And many farmers or ranchers who know about or have streambank problems simply haven't been offered any answers.

With this in mind, the Water Quality Bureau is producing two video tapes: one on saline seep, the other on stream corridor management.

It's an aggravating fact that many Montanans can be reached only by television. The tapes, both 12 minutes long, are being tailored for presentation on local TV talk shows. A tape would take up half of a 30-minute show, followed by a discussion in the second half of the show. The tapes will also be presented to group meetings around the state.

Also, the tapes will be edited down into two 60-second television spots for presentation as public-service advertising. This approach has succeeded in bringing water-quality issues before the public in the past two years.

The advisory committees working on the productions hope they can give a positive perspective on the two issues, stressing solutions already accomplished by Montana farmers and ranchers who've used proper management techniques.

The saline-seep tape will feature farmers and locations in the Golden Triangle area north of Great Falls. The Triangle Area Conservation District's saline seep study will be one of the "stars."

The stream corridor tape may be shot in the southwest corner of Montana, probably centering on ranches and ranchers along the Ruby River.

Both of the color tapes will be completed by the end of this year.

FOUR MORE COUNTY MAPS AVAILABLE

The Montana Department of Community Affairs (DCA) has received maps of four more counties prepared through the Statewide Cooperative Land

Use Mapping Program. The latest maps for Broadwater, Missoula, Pondera and Powell Counties bring to 10 the total of Montana counties available for public distribution. Previously published were maps for Cascade, Hill, Lewis and Clark, Mineral, Silver Bow and Teton Counties.

The full-color maps show 10 categories of land use for each county:

-- urban and built-up areas
-- mineral extraction areas
-- industry and utility areas
-- rural and suburban tracts
-- irrigated cropland, hayland and pastureland
-- non-irrigated cropland
-- recreational areas
-- rangeland
-- commercial forests
-- forest-covered areas

Nine state and federal agencies and three corporations are working with DCA on the mapping project. Map drafting is done by the Cartographic Bureau of DNRC and the maps are printed by the Soil Conservation Service at its cartographic facilities in Portland, Oregon.

Copies of the maps have been sent to the county commission or county planning board offices, and to the county offices of the Soil Conservation Service for free distribution to the public.

Maps and the map legend also may be ordered directly from DCA's Community Development Division, Capitol Station, Helena 59601. To cover the costs of mailing, enclose $1 for the first map and legend ordered and 25 cents for each additional map or legend included in the same order. Checks must be made payable to the Montana Department of Community Affairs.

SPECIAL PROJECTS

MUDDY CREEK -- A MONUMENTAL TASK

Like grappling with a grizzly, the Cascade and Teton County Conservation Districts are taking on Muddy Creek (of the Sun River) as their top-priority nonpoint-source pollution problem.

By raising a little ruckus -- and making some recommendations -- the districts have gotten action out of several government agencies since the Muddy Creek project began with a tour last spring. If ever there were proof that "the squeaky wheel gets the grease," Muddy Creek is it.

After the tour, the districts received $6,000 from DNRC's Conserva-

tion Districts Division to compile a special report for Muddy Creek. The districts formed a task force and hired Systems Technology Inc. (a consulting firm in Helena) to coordinate the report. The report, which defined the problems and recommended solutions, was completed last November.

Since then, the districts have recommended a continuation program that would assist the ASCS in distributing $400,000 in Agriculture Conservation Program funds for on-farm management improvements, coordinate agency activities on the creek and develop funding proposals for a comprehensive Muddy Creek rehabilitation plan. Continuation money hasn't been received yet, but the districts are looking for money from the WQB Statewide 208 Program, the DNRC Conservation Districts Division and Water Planning Bureau, the County Economic Growth Council and the Old West Regional Commission.

In addition, the Water and Power Resources Services (formerly the Bureau of Reclamation) is planning to request $75,000 in next year's budget to estimate the cost and feasibility of a surge relief canal and an interceptor, two recommendations of the task force. The Water and Power Resources Services has scheduled a demonstration of the pilot channel-stability project on the creek.

"Both the Teton and Cascade districts have done a tremendous job over the year of arousing public and government awareness -- and action -- on Muddy Creek," said Kit Walther, statewide 208 coordinator.

Montana's U.S. Sen. Max Baucus and U.S. Rep. Ron Marlenee each have assigned a staff member to help the districts obtain financial support.

"The efforts of the conservation districts," Walther said, "certainly deserve commendation from all of us concerned with clean water."

PRICKLY PEAR -- AN EXPERIMENT IN COOPERATION

Last November, 28 people stood at a tiny creek 20 miles south of Helena, looking at the yellow scum that coated the creek bottom. Most of them were getting their first look at acid mine-drainage.

The creek is a small tributary of the Prickly Pear Creek, which flows out of the Elkhorn Range, parallels Interstate 15 for about 15 miles, then cuts through Helena Valley before entering the Missouri River system at Lake Helena.

Because it's almost on the Capitol doorsteps, the Prickly Pear has provided a convenient laboratory for state biologists. An interesting example, too, of the different kinds of damage Man can do to a once-fine trout stream.

The 28 persons getting in and out of a school bus at a dozen stops along the creek on that crisp autumn day were participating in the first phase of a program to rehabilitate the Prickly Pear. The tour was

sponsored by the Department of Health and Environmental Sciences and the Department of Fish, Wildlife & Parks.

The idea was to get local people who are involved with the everyday use of the stream -- and their government representatives -- out to look at the whole range of problems that give the stream, in its lower section, the worst classification a Montana stream can have.

The tour included a conservation district supervisor, a district conservationist, a state representative, people from the Asarco smelter and Kaiser cement plant (both of which sit next to the creek), the head of the county sediment control project, an operating-engineers union representative, loggers, city officials, the county extension agent, members of several state agencies, and the head of the Prickly Pear Sportsmen's Association.

The idea worked. Many of those attending were impressed enough with what they saw to pledge support for a cooperative, local effort to clean up the creek.

That, of course, is the concept of the Statewide 208 Program: cooperation on a local level by those who affect the creek and whom the creek affects. By mid-January, the Prickly Pear Project had gained momentum. Many people and agencies who hadn't made the tour have asked to be involved. The Water Quality Bureau has initiated a streambank inventory, monitoring is being stepped up below the Helena Sewage Treatment Plant outfall, possible "rewatering" of a badly dewatered stretch of the stream is being applied for in Congress, and the sportsmen's association has asked to play a key role in the project.

If that momentum continues, the creek's classification likely will be upgraded after certain adverse impacts are corrected. Recreation may even be possible again, not to mention other beneficial uses that will be returned to or preserved on the Prickly Pear.

But even more importantly, the project could serve as a model for correcting problems on other streams across the state.

WHY THE PRICKLY PEAR?

We expect someone to complain that the state is working hard on the Prickly Pear because it's next to the capital.

The complaint wouldn't be completely out-of-bounds. But we feel, "If we can't clean up the water in our own back yard, as Congress demands, how are we going to clean up water that's 400 miles away?"

There are other considerations:

-- The Prickly Pear is as bad off as any other stream in the state.

-- The creek contains the entire litany of pollution problems: acid

mine-drainage, sediment from road construction and overgrazing, septic drain fields, industrial spills, urban and agricultural runoff, sewage treatment plant discharges, and total dewatering for irrigation.

-- Many of the lessons learned through correcting these problems can be applied to other specific problem areas in the state -- especially what we learn about public participation aspects upon which the project depends.

-- By picking a site close to headquarters for our "experimental" project, we're saving a good deal of money on travel expenses.

-- And we're using data that already has been collected on the creek by Water Quality and Fish and Game biologists and technicians -- data that may have been wasted had it merely been "shelved."

STUDIES -- THE FACTS ARE IN

THE NORTHWEST LOOP REPORT OF THE BIOLOGICAL MONITORING PROGRAM

Algae and aquatic insects that dwell in northwest Montana streams are suffering little or no stress from pollution, according to a study released by the Water Quality Bureau's biological-monitoring team.

The study is the third of five initial reports expected to be released by the bureau by next June. Sampling has been carried out at 85 stations on 59 streams since 1977.

The study did point out that northwestern Montana streams are slightly less productive biologically and are potentially more sensitive to acid mine-drainage and heavy-metals pollution than streams in southwestern Montana. The bureau completed the southwestern "loop" report in February, 1979.

Swiftcurrent Creek in the Saint Mary River drainage on the east side of Glacier Park had fewer kinds of bottom-dwelling insects and algae than other streams in the northwest loop. Nonpoint-source pollution is the suspected cause and the report advised further investigation.

Polluting land practices are known to degrade some of the smaller tributaries in the northwest study area, but most of the 16 stations in the loop had good water quality, the report said.

URBAN STORMWATER-RUNOFF STUDY COMPLETED

A report of urban storm-runoff pollution in Montana has just been completed for the Water Quality Bureau by Wright-McLaughlin Engineers of Denver.

The study, undertaken in 1978, had two major phases. The first was the detailed study of Helena and Anaconda to determine runoff and related pollution. The two cities were selected by WQB because: (1) they lie on opposite sides of the Continental Divide; (2) they represent different types of economic base and pollution potential; (3) Helena provided the opportunity to analyze storm-runoff pollution loads from a dense downtown business area as well as from typical residential neighborhoods free of contaminants associated with heavy industry; (4) Anaconda presented the opportunity to study pollutant loads from an industrial-based community.

The second phase of the study was the extrapolation of the data to other Montana communities to define the urban pollution problem on a more widespread basis throughout the state. The report identifies typical problems, devises practical solutions and sets forth some guidelines.

The Water Quality Bureau is making this report on stormwater management available, free of charge, to any Montana community -- 2,500 population or larger. WQB has notified each city by letter about this offer.

PLENTY TO SEE ON THE MUSSELSHELL

You can find a lot of things along a Montana river, if you look hard enough. A Water Quality Bureau team, which took a hard look at the Musselshell River last June, found the following within a 160-mile stretch:

-- 51,220 feet of stream channel alterations

-- 34,680 feet of rock riprap

-- 3,320 feet of log riprap

-- 45 rock jetties

-- 158 car bodies

-- 11 irrigation diversion dams

-- 60 pump sites

-- 291 snags

-- 527,110 feet of eroded banks

The bureau's Streambank Physical Features Inventory between Shawmut and Melstone found that channel alterations by the Milwaukee Railroad dominate Man's impact on the river. It also noted, however, that streambank erosion has been aggravated severely by farming and grazing to the water's edge.

The report said the erosion could be mitigated by the establishment of a protective corridor of deeply-rooted vegetation along the river.

The inventory was carried out to pinpoint sources of the sedimentation that afflicts the river and inhibits its agricultural and recreational uses. The data is being made available to conservation districts in the area and to other government agencies.

"WHAT A CLEAR UNSPOILED STREAM!...YOU CAN READ THE LABELS ON THE BEER CANS!"

from "Dunagin's People"

A second Musselshell report is due later this year. It will detail findings of a more intense survey carried out last August by the Water Quality Bureau team on 37 mainstem sites and 14 tributaries.

THE FLINT CREEK RANGE -- A NICE SURPRISE

A stream sampling project has, for a change, given the Water Quality Bureau a pleasant surprise.

The degradation of streams we expected to find in the Flint Creek Range near Deer Lodge just hadn't occurred.

The Flint Creeks have been mined heavily and mining activity has been on the upswing there in the past several years. So we investigated mining-related impacts by sampling chemical, physical and biological aspects on 37 streams from July through September 1978.

The data, recently released, showed mining has impacted only a small percentage of the range's surace waters. Severely impacted streams were rare. However, the highest-quality water was found where the least mining occurred, and most lower-quality water could be blamed on mining. The lower stretches of some streams were adversely affected by agriculture.

The Flint Creek Study has provided some suggestions for prevention of impacts from future mineral development in the range. It gives us some good baseline data for judging those impacts.

Statewide 208 Project
Water Quality Bureau
Dept. of Health and Environmental Sciences
Capitol Station
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TO:

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